POPULATION

AND FOOD

Researched by the NECESSITY FOR CHANGE INSTITUTE OF IDEOLOGICAL STUDIES

Lord Boyd and The Hungry Millions

"A life time of malnutrition and actual hunger is the lot of at least two thirds of mankind."

- Lord Boyd Orr(former Director of the Food and Agriculture Organisation of the United Nations,) Scientific American , August 1950.

"This extraordinary mis-statement, which is in fact based on an arithmetical error, is believed by almost everyone, because they have heard it so often; people come to think that any statement which they have heard repeated frequently enough (as Hitler pointed out) must be true".

- C. Clark (Director of the Agricultural Economics Research Institute, Oxford) and M. Haswell in "The Economics of Subsistence Agriculture," 1964.

Since the end of the Second World War, there has been not only a population explosion but also an explosion of "philanthropic" interest in the food problems of the under-developed countries. We are told there is not enough food in the world, there are too many people. Famines are natural phenomena because the underfed people are inept at growing food.

This most recent outbreak of love for suffering mankind appears to derive from the activities and statements of Lord Boyr Orr, who was Director General of FAO from 1945-48, and was awarded a Nobel Peace Prize in 1949. In such a position, Lord Boyd Orr must have had access to large quantities of statistics, even if FAO is, as the Economist described it, "A permanent institution devoted to proving that there is not enough food in the world" (Economist, 23 August 1952.) M.K. Bennett, the Director of the Food Research Institute at Stanford University, U.S.A., undertook to find out what use he had made of them. He published his findings in 1954 in a book called "The World's Food". As Clark and Haswell state, since 1954 no reply has been made to Bennet by Lord Boyd Orr or anyone speaking on his behalf.

FAO's "Second World Food Survey," published in 1952, (after Boyd Orr claimed that 2/3 of mankind was malnourished or hungry,) contained the evidence on which he based his statement. "This survey included a statistical table, for which neither sources nor methods of compilation were given, purporting to show average calorie requirements per head of all the nations in the world, comparing these with supposed data of calorie supplies - data which for most of the countries in question have not since been republished, because of serious doubts about their accuracy" (Clark and Haswell).

For example, these calculations showed that Portugal was seriously undernourished, but not Spain. Bennett concluded that Boyd Orr, not content with numerical statistics actually mixed them up. He had a set of figures of "targets" for production some time in the future (which targets FAO itself had already abandoned) and had called these minimum requirements, levels below which people actually suffer hunger'.

When the FAO decided on their "World Freedom from Hunger campaign " - they looked around for statistical evidence on which to base it. The leading FAO spokesmen, while not feeling entirely bound by Lord Boyd Orr's statement, which he had made after he had retired from the Director-Generalship, nevertheless thought they wanted a figure not too different from his, and decided that it should be half the world which was suffering from malnutrition. Some of these statements designed to prove this, for example, Sir Norman Wright's address to the British Association for the Advancement of Science in Cardiff, in September 1960, fixed a very high level of minimum requirements, in complete disregard of the conclusions reached by FAO's own expert committee on calorie requirements".

This 50% figure is based on the same two fallacies as the 2/3 figure. These are a) that a person is hungry when he is not taking in an arbitrarily high number of food calories per day. Such an estimate does not agree with either FAO's own estimates of minimum physiological requirements, or with surveys carried out on healthy individuals with no economic reason for not consuming more food, for example in Ceylon (Clark - Population Growth and Land Use.) and

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b) that a person is malnourished unless 20% of his calorie intake is from animal products, fruit and vegetables, and fats and oils, an argument which is expanded upon in FAO's "Third World Food Survey". No evidence is given for this, apart from the statement that it is "generally agreed". FAO has produced a similar report on protein requirements - a person being malnourished unless he is eating a certain percentage of animal protein. There is no evidence for these conclusions, and in fact the evidence points to the opposite conclusion - as FAO's own results show - that people do not take their food in this proportion. Vegetarian sects are known whose members consume no animal protein at all, not even eggs or dairy products, with no observed ill-effects.

J.R. Malthus (1766-1834), an Anglican clergyman and reactionary economist who published an "Essay on Population" in 1798, used the argument that:

1) the population cannot increase without the means of subsistence - in other words, people need food, and more people need more food.

2) the population does increase, but in geometrical progression (1, 2, 4, 8 etc.) whereas the attendant increase in food production is in arithmetical progression (1, 2, 3, 4 etc.)

3)"the superior power of population increase over food production cannot be checked without misery and vice."

"No limits whatever are placed to the productions of the earth, they may increase for ever and be greater than any assignable quantity yet still the source of population being a power of superior order, the increase of the human species can only be kept commensurate to the increase of the means of subsistance by the constant operation of the strong law of necessity acting as a check upon the greater power."

Malthus said that there were two kinds of checks on population - preventive checks and "positive" checks. Preventive checks were manifestations of the "foresight of the difficulties attending the rearing of a family." These had singularly little effect among the working class (who had no hope of improving their situation, and therefore were quite happy to have large families,) In this class, therefore, positive checks on population were operative - their distress, misery, mortality and poor physical development. Malthus was living in England through a period when the results of capitalist exploitation were most glaring, and with this rationalisation he could support the existing social order, as well as at the same time claiming that he was in favor of the best possible organisation of society. There was nothing wrong with the system, what was wrong was that there were too many oppressed people. Instead of helping the oppressed people to overthrow their oppressors, this god-fearing Reverend Malthus gave reasons why there would continue to be oppressed people - it was in the nature of things, since he showed that there would always be a shortage of food for the oppressed classes and nations. In this situation it was necessary to have an elite class, for instance to provide a class of consumers to consume the things that the working class were producing. By virtue of their position and their wages, the working class themselves could not be consumers (because they had no money!) but they did need to work, and it was therefore necessary for there to be a class of consuming parasites - to keep the wheels of production turning. (What a charitable thought!)

What could one do in this situation? Charity would do no good, since this could only ultimately put the price of articles up by artificially increasing the amount of money available. "When an article is scarce and cannot be distributed to all, he that can show the most valid patent, that is he who offers most money becomes the possessor." The whole system was in a state of equilibrium, and raising one section of society would just depress others. There was nothing that could be done -"To prevent the recurrence of misery, is, alas! beyond the power of man."

"Famine seems to be the last, the most dreadful resource of nature." If vices and wars failed to keep the population down, epidemics would follow. "Should success still be incomplete, gigantic inevitable famine stalks in the rear, and in one mighty blow, levels the population with the food of the world."

Malthus regarded the means of production as fixed, and the relations of production controlling these means of production as untenable. The means of production and social organisation were subject to refinement, but not to any qualitative development and change. The history of human society, before and after Malthus, convincingly illustrates that the stage of the development of the means of production is the limiting factor on the nature and extent of human production. The resources of nature are infinite, though at any one place and time they are finite. Marx said in Capital (Vol. 1 p. 197) "Labour is in the first place, a process in which both man and nature participate, and in which man of his own accord starts, regulates and controls the material reactions between himself and nature. He opposes himself to nature as one of her forces, setting in motion arms and legs, heads and hands, the natural forces of his body, in order to appropriate nature's production in a form adapted to his own wants." The relation between man and nature, the man's means of trapping the infinite, is the means of production. The means of production have developed through various forms of hunting and agriculture to modern industry.

The other factor which can have a limiting effect on the production of food, or any other form of production, is the social organisation. Malthus at once point (A Summary View of the Principle of Population - 1880) recognised that unequal distribution of land could retard the expansion of agricultural production. "It must perhaps be allowed that under a system of private property, cultivation is sometimes checked in a degree, and at a period, not required by the interests of the society". But this, he concluded was a good thing. He defended the landowner: it made no difference whether food shortages were produced by a bad social structure, or from the exhaustion of the land, and bring into operation all the sooner the "natural checks on population". "If they (our ancestors - ed.) had properly called forth the resources of the soil, it is quite certain we would now have scanty means left of further increasing our food."

One might ask what is"the properly calling forth the resources of the soil?". To an Australian aborigine, it is to exhaust the game, we use up all there is to be found of a particular edible root. To the Zambian shifting cultivator, it is to grow two or three crops in an area, and then move on to clear and burn a new area. To a feudal farmer, it is to grow three crops on his strip of land, and then to leave it fallow for a year. To the more advanced agriculturalist it is to rotate crops, while with the development of modern technology not only does "properly calling forth" have no meaning, but neither does "the resources of the soil", since the capacity of soil depends on the technological development of man, indeed, as the scientific know-how develops, with it increases the capacity of the soil.

So Malthus' point that the exhaustion of natural resources is inevitable cannot be held. The natural resources will appear to be exhausted just as the possibilities of the existing means of production are exhausted. The means of production can only make available a certain limited amount of produce. When the means of production is newly developed (e.g. agriculture over hunting), this will give a stimulus to the development of the society, a new social organisation will be developed in accordance with the new means of production, and the population will be able to increase to a new level. Or rather, a new rate of population increase will replace the old rate, which accorded with the old means of production. As Malthus observed, populations always increase, unless there is a definite check to their increase.

The rate of increase of population, therefore, in an agricultural society will be greater than the rate of increase of population in a hunting society. Similarly, the rate of increase of population in an industrial society will be greater than in an agricultural society.

Malthus openly declared himself in favour of the existing order of society and against the development of any new order: he presented a consistently rigid view of the World. He looked at the capitalist society as having developed into what it is today but could grasp no origin nor the end of this system. For him, "Things have become," men were basically bad, basically competetive. Which kind of men were basically bad, basically competetive, he failed to tell: "Man cannot live in the midst of plenty. All cannot share alike the bounties of nature. Were there no established administration of property, every man would be obliged to guard with force his little store. Selfishness would be triumphant." Our Reverend Malthus again failed to tell us who will be the producers of property and who will be the administrators, surely, the capitalist system promotes selfishness and does not oppose it, so selfishness could not be the central issue.

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* Their Maori successors, who killed off the mea, lived at 30 sq. km. per person.

According to Malthus, the only ways to solve the problem of the poverty of the working people was to shorten their life span, reduce the population or stop its increase. He regarded famine, pestilence and war as a means to cut down the population.

Population Growth versus The Historical Development of the Means of Production

At the time when Malthus wrote, the population of England was approaching 10 million (Clark - Population Growth and Land Use 1937). It is now five times that level. The world rate of population growth is nearly 2% per year, in some countries 4%. The population of the world before the introduction of agriculture has been estimated at 5 - 10 million. (Goran Ohlin - World Population Conference, 1965). At the beginning of the Christian era, the world population was approximately 250 million, whereas by AD 1650, it had doubled to 500 million. This gives an average rate of increase of 0.04% per year between Ad 1 and AD 1650.

Morgan (1877 - Ancient Society, or Researches into the Lines of Human Progress from Svagery Through Barbarism to Civilisation) as Engles relates, in Origin of the Family, Private Property and the State, divided the history of the development of society into Savagery, Barbarism and Civilisation. In the Lower Stage of savagery, man was living in tropical or subtropical forests, at least partially in trees: "this alone explains his survival in the face of large beasts of prey." He gathered fruit, nuts and roots for food. There is no historical evidence for the existence of this period, but, "once we admit the descent of man from the animal kingdom, the acceptance of this transitional stage is inevitable." (Engels).

From this man passed to the Middle Stage of savagery, which began with the utilisation of fish for food and the use of fire for cooking. Fish food only becomes fully utilisable with the use of fire. This made man independent of his original habitat and of the climate, and enabled him to spread over the whole Earth by following the rivers and the coasts. In this period came the early Stone Age (Palaeolithic): the crude stone implements which man left behind him all over the continents are evidence of these migrations. Fire making and the development of the club and the spear enabled the use of roots and tubers, and of game, as a food source. This was man's means of production. The Australian aborigines and certain other inhabitants of the Pacific area are still in the Middle Stage of Savagery. The Australians, on the arrival of the Europeans, were estimated to have been living at a population density of about 30 square kilometres per person, and "it is agreed that they had not much room to spare" (Clark). In New Zealand, when the mea was hunted, the early Maori lived at a population density of 10 - 15 square kilometres per person.* The Maori had the greatest population density for any known people at this stage of development.

The final stage of savagery is the Upper Stage, which begins with the development of the bow and arrow, "whereby wild game became a regular item of food, and hunting one of the normal occupations". The North American Indians, occupying the arear of the U.S.A. and Canada, were in this stage on the arrival of the Europeans, although they were, according to Clark (The Economics of Subsistance Agriculture) facing a 'population crisis' at the time, with a population of one million, in 12 m. sq. km. deducting tundra and desert. They were being forced over to cultivation of maize, which estimated to have taken up 2/3 of their caloric consumption. As soon as they were able to buy guns and steel traps, they began to exhaust their hunting grounds. At present the Eskimos and Indians in the cold climate of N.W. Canada require 140 sq. km. per head to live.

After savagery, mankind developed into barbarism, which dates from the introduction of pottery. The achievements of the period were the domestication of animals and the cultivation of plants. Again, Morgan divided it up into lower, middle and upper stages. Development in the Americas was different from that in the Old World, since there was only one animal to domesticate, the llama, and only one plant to cultivate, maize. (Recent research has shown that the maize was itself not 'given', a plant naturally adapted to man's needs [Mangelsdorf, 1954, "New Evidence on the Origin and Ancestry of Maize", American Antiquity, 19 p. 418, quoted in "The Economic History of World Population" by Cipella, 1962]). Man developed the maize plant as he developed his society. In 6000 years maize was "evolved from a small wild grass bearing tiny ears; no larger than a strawberry, into one of the world's most productive cereals". We shall not deal with America, except to say that the Mexicans, Central Americans and Peruvians were in the Middle Stage on the arrival of the Europeans, lived in adobe or stone houses, had developed irrigation works, used metals, and supported dense populations and large towns, in contrast to the North American Indians.

With the domestication of animals, land requirements in the best natural grasslands fall to approximately 1/2 sq. km. per person (Clark). Morgan suggested that nomadic pastoral tribes represented an earlier form of society to agricultural communities, agriculture being introduced to provide cereals for winter fodder for the cattle when tribes were forced to expand out of the best grasslands. This is not necessarily so in all cases. The first stage of agriculture in Africa is "cut and burn" agriculture. This is still practiced in Africa south of the Sahara. The earliest form is "forest fallow". Mature forest growth is burnt, leaving a friable forest soil covered with ashes, which can be planted using a simple stick. This develops into "bush fallow" agriculture, which is distinguished by the fact that the cultivator moves around to successive areas, and that increasing numbers of weeds and grass roots survive the fire and the soil is more compact. Weeding and hoeing become necessary. In Zambia, the maximum population density possible under this system of cultivation has been calculated as eight persons per square kilometre over the whole area required. This represents a much greater population density in real terms, since the amount of land actually cultivated in one year is approximately 1/30th of the whole. Unless circumstances force them, tribes do not take up more advanced forms of agriculture of their own accord, although they may be acquainted with the methods. This is because although cut and burn agriculture is, by the more advance standards, inefficient, wasteful, etc., it requires a more advanced transport system to make it feasible for the surplus produced in one area to be transported to another area, and so for a larger population to be supported. It is obvious that with a more advanced social organisation, the possibilities for increased food production in such countries are enormous. Only in a few areas, such as the island of Ukara in Lake Victoria and in some mountain areas, have tribes adopted more intensive agriculture.

According to Clark, it is also at this stage that nomadic pastoral tribes could have arisen from populations living by bush fallow agriculture and unwilling or unable to adopt the plough, if grasslands were available.

The next stage is "short fallow" agriculture, using wooden ploughs to turn a soil that is too full of grass roots for a hoe. The supply of fertilising ashes has also become less abundant, since there is more grass and less scrub grown during the period of fallow. The cultivator has to collect dung, refuse, pond mud and litter from surrounding land as manure.

After short fallow, we find the development of an iron plough drawn by draught animals. This marks the passage from the middle stage of barbarism to the upper stage. This makes land cultivation possible on a much wider scale - "tillage - and in the conditions then prevailing, a practically unlimited increase in the means of subsistence .... With this there also came a rapid increase of the population and dense populations in small areas." (Engels) The wooden plough-shares can only work 'light soils'. "The adoption and the diffusion of the iron plough-shares and other new metallic agricultural tools, opened 'heavy soils' to cultivation. The Greek and Italian civilisations would not have been possible without these developments." (Cipella, 1962). In fact the development of denser populations is a necessity at this period. Draught animals for farm work have to be well fed, and this requires the growing of fodder crops or the diversion of cereals from human consumption to the animals. More labour is required per unit of food produced. The apparent agricultural productivity per man hour of labour input falls, and to offset this by "the economics of specialisation" (Clark) and the development of transport, larger and more concentrated populations are required. "At this stage.....more progress was made in production than in all the previous stages put together. To it belong the Greeks of the Heroic Age, the Italian tribes shortly before the foundation of Rome, the Germans of Tacitus, and the Normans in the days of the Vikings." (Engels)

The iron plough increased the productivity of the land,and the populations grew more dense. Above a certain density, three course rotation of crops made its appearance. This raised output by shortening the total period for which the field was left fallow. Crop rotations and the use of legumes were not discoveries of the 18th century but were found in Europe by 800 A.D. ("Three field crop rotation was probably already known in classical Greece as early as the fourth century B.C." Cipella). When the European population densities decreased, this system went into disuse, but later re-appeared, as early as the 18th century in Flanders, where the population was particularly dense.

The entry of society into the period of civilisation is marked by the rigidification of the divisions of the barbaric stage into class divisions, the rise of commodity production and exchange, and with it a new class, the merchants, and the development of the modern state to accomodate the organisation of society to the antagonisms inherent in its class nature. The means of production created in the new era came with the industrial revolution.

NOTE ON DRAUGHT ANIMALS.

Man learnt how to harness horses and oxen to carts and ploughs before 3000 B.C. But the technique of harnessing was crude and inefficient - a yoke rested on the withers and a strap attached to the yoke passed around the animal's neck. This hampered the animal's breathing and reduced its power. Another technique was to attach the yoke to the horns, not very efficient either. The harness consisting of a rigid collar resting on the animal's shoulders, was not developed until the 4th century by the Chinese, and the 6th century A.D. in Europe. Again, this greatly increased the area which could be brought under cultivation. (Cipella, 1962)

The Capacity of the Soil versus Properly Calling Forth the Resources of the Soil

"Agriculture in New Zealand, the country which has reached the highest productivity, is now so productive that one man working on the land in New Zealand in 1966, produced enough food to feed - or it might be more accurate to say, to overfeed, to the highest American standards, 37 families; and even this high figure is steadily increasing at a rate of more that 4% a year." (Clark, 1967)

This level of productivity has been achieved with only about an equal number of workers in supporting industries as are directly engaged in agriculture. "With good modern methods, it appears that any community can be served by the labour of some 3% of its labour force in farming, with about the same number engaged indirectly in supplying the equipment and fertilisers."

But is the area of the earth large enough to feed present and perspective world populations ? Clark (1967, page 158) gives calculations of the total requirements of land space to produce an American diet - "which we should remember stands at about eleven times the subsistence level."

Land required per person to produce a US diet (square metres/person/year).

Cereals, sugar	500
42 kg. of pig and poultry meat	500
42 kg. of beef and mutton	400
18 kg. of eggs	200
= 1/2 an acre/person/year.	2000

"If we take world resources of agricultural land at 10.7 billion hectares of standard equivalent, this would feed, at maximum standards, 47 billion people" (nearly 19,000 times the present population of the earth).

By Japanese standards of consumption, 157 billion people could be supported (nearly 63,000 times the present population of the earth).

'Standard land equivalent' is taken as having the productivity of the farmland of the humid, temperate countries. Different kinds of land are adjusted to give an area expressed at this standard.

Two examples illustrate how food production has been increased. Mikhailov (1933) (quoted in J. de Castro, The Georgraphy of Hunger, 1952) described how the Kela peninsula in the USSR, which is situated at 37°44' North, or 3° above the Arctic Circle, provides wheat, barley, turnips, carrots, peas, radishes, squash and cucumbers for its 150,000 inhabitants. Further North, the Taymyr Peninsula, 350 miles from the North Pole, "plants selected according to the 'vernalisation' methods of the agronomist Lysenko are being cultivated and are adjusting their growth and ripening to the short polar summer. Plantations of potatoes, corn and raspberries not only produce at such a latitude, they produce well."

De Castro also quotes the example of Britain during the Second World War. "The crop yield of wartime Britain demonstrates overwhelmingly that necessity can inspire an agricultural expansion far beyond the limits of normal expectation. Before the war the UK produced only one third of her food needs and imported the other two thirds. Under pressure of the maritime blockade, production climbed until it took care of about 45% of the national needs. This came about through an increase of about 30% in the area under cultivation, which rose from 8, 800, 000 to 14, 5000, 000 acres between 1939 and 1944. And all through the war, surprisingly enough, Britain's nutritional situation, far from deteriorating, improved greatly. At the end of the war, the number of her undernourished had sensibly diminished."

The above estimate of world resources did not include deserts, tundra, etc., which modern technology and modern agricultural science can bring under cultivation. Neither did it include the sea, which in terms of light received from the sun and units of photosynthetic activity by plants, has a much greater potential for food production than does the entire land surface. But in crude mathematical terms, there is no shortage of land for cultivation in the forseeable future.

Famines

(From the New York Times, August 16th, 1952):
"Indian Larder Full, 20,000,000 starving. Peasants in four states, jobless from crop failures, cannot buy food that is available. About 20,000,000 Indian peasants are suffering acute distress because of crop failures.

Paradoxically, Government warehouses are so filled with grain that the United States and Canada have been asked to postpone shipments of 750,000 tons of wheat until the next year and the Central Food Ministry hopes to reduce next year's total grain imports by 25% or more.

The explanation for this contradictory situation, according to Government analysis, is a lack of purchasing power on the part of the population. This in turn is caused by droughts and monsoon failures, which have cut down the scope for hired labour in the fields of the large landowners. The peasants, who are unable to support themselves and their dependants on the products of their own small holdings, are being denied the work on which they normally have depended for income to buy the additional food that is available.

India's current problem apparently is not a food shortage or famine, therefore, but widespread unemployment."

Throughout the underdeveloped world, feudalism and landlordism oppress the peasantry, and, as Malthus observed, "cultivation is sometimes checked in a degree, and at a period, not required by the interests of the society." A United Nations Mission in Bolivia in 1950 found that 4.5% of the rural landowners owned 70% of the land. The two largest estates were of 5,000,000 and 3,700,000 acres. The U.N. Mission stated that the majority of the people were concentrated on the land least capable of providing a living, while great acres of good land were relatively underpopulated and taken up by big estates. Indian families, living by subsistence agriculture tended to live on the steeper, poorer land which was most subject to erosion. The U.N. Mission concluded that "the land tenure system almost completely blocks the development of progressive agriculture." (Oser, 1953)

In Guatemala the 1950 agricultural census showed that 2.2% of the landowners held 70% of the land, while 75% of the poorer landowners occupied 10% of the land. The United Fruit Company of the USA owned more than 1/10 of the cultivated land, and was the largest landowner (567,000). United Fruit also owned 3,000,000 acres in other Central American countries. (Oser, 1953)

We shall take the case of India in some detail. The immediate cause of famine in India has usually been drought, which due to the decaying and stagnant state of Indian feudal, religious society, has probably caused local shortages and famines for many hundreds of years. The development of British rule in India, however, completely changed the situation, raising both the frequency and severity of the famines. From 1765, when the British East India Company took over Bengal, up until 1858, there were 16 famines (B.M. Bhaatia, 1933, "Famine in India", and all the subsequent information up to the Bengal famine.) From 1860 to 1908 there were major famines in one part of the country or other in 20 out of the 49 years.

With this increase in frequency, there came a change in the nature of the famines. So long as there was little means of transport and the trade in grain limited, a population of a region under famine conditions faced extreme hunger as a result of climatic failure. The building of the railways in the 1860's changed this altogether. The nature of a famine changed from a straightforward food shortage to a "lack of purchasing power" on the part of those who were suffering from starvation. The trade in grain brought the opportunity for merchants to withhold stocks while prices rose, and spread the high price over wide areas of the country. Famines were no longer real shortages.

The Bengal Famine Commission (1898) remarked, "There is apparently food in the country and anyone can feed himself for an Anna a day, but the usual agricultural labour by which the landless classes earn wages is mostly at a standstill." In the 1996-97 famine, food was "always purchaseable in the market, though at high and in some remote places excessively high prices."

When the English came to India, England was on the threshold of the Industrial Revolution. England imposed the capitalist economic system on India, whose social basis was self-sufficient village communities. Indian merchant capitalism had developed independently, and so had the capitalist forms of organization in certain urban industries, for example shipping and textiles. But the rural society and the vast majority of the population was completely unaffected. Economic and social relations were regulated through ancient customs and administered through the panchayat (village council), or by a village head man who represented the collective will of the community. The village community dealt collectively with the state to pay land revenues, land itself was transferable within the community, but was seldom permitted to be sold to an outsider. Dealings with bankers and merchants were on the same basis. Artisans and servants were the employees of the whole body of cultivators, and they received in exchange for their labours a fixed share in the produce of the land. Other forms of economic activity were subsidiary to agriculture, and were designed to satisfy the needs of the farming population. The wage labourer-capitalist relation did not exist. Under Morgan's classification, rural India was a society in the highest development of the upper stage of barbarism, out of which a civilization had emerged thousands of years previously.

The first effects of British rule were the destruction of the indigenous industries and the introduction of the British land revenue system. These were the two means by which the English imposed the capitalist system on the whole Indian economy, and the result was the destruction of the communal organization. The cost of this destruction was borne by the most vulnerable sections of the rural community - the agricultural labourers, small tenant farmers, village artisans, and menial servants.

Up till the end of the 18th century, Indian industry was developed to the same level as was found in the rest of the world. England had to put a tariff on Indian cloth imports to protect the English woolen industry. The British used their political power in India to destroy the local industry, which could not compete with English industry on the world market after the industrial revolution, and which had to be destroyed in respect to the Indian home market as well, which the British wished to make into a market for their own goods. For example, the Indians had provided enough clothing for themselves since time immemorial, but by 1814 the British were exporting 818,208 yards of cotton to India in that one year: by 1835 the figure was 51,777,277 yards. After 1860 the railways accelerated the penetration, and the silk, wool, brass, copper, enamelled jewellery and stone carving industries suffered a similar fate. Artisans were thrown out of work and became wage labourers, owning neither their means of production nor their finished product. A class of landless day labourers emerged in the country, subject to the seasonal character of agriculture and the vagaries of the rainfall for their livelihood.

With the destruction of the rural social structure, the British introduced their system of landlordism, under which land was a capital asset, yeilding rent to the owner. Marx gave England as an example of a country in which the rent system was most perfectly developed. There were three classes: the landlord, who lived off rent, and let this property to a capitalist, then the capitalist who owned the means of production and lived off profit, employing the third class, the wage labourers, who owned nothing except their own labour power. This system was thrust upon the Indian countryside, with some adaptations to suit local conditions.

T. Munro, the Principal Collector of Ceded Districts (North West Province) wrote to the Board of Revenue in 1807 "Nothing is plainer than that landed property has never existed in India except on the Malabar Coast" (the South West). With the destruction of industry, the urban capitalist class in India were looking for new areas of investment, and they turned to the aquisition of land as their private property. Furthermore, the British introduced the "zamindari" system (oser, 1953). This was started by Lord Cornwallis in 1798 as a way of collecting rents. The States's share was 10/11ths of the rents collected, the Zamindar's share 1/11th. But the Zamindar and his descendants had the right to increase the rent and to keep all of these further increases. A class of land-owners, wholly devoted to the British, was established, as a long chain of intermediaries between the Zamindar and the cultivator. The margin between the rents due to the state and the rent paid by the cultivator increased as more and more intermediaries participated in renting and subrenting. The Indian Statutory (Simon) Commission of 1930 discovered that in some cases there were 50 intermediaries between the zamindar and the cultivator, who would be cultivating a fraction of the land originally let. Naturally, this system of land tenure makes for a most inefficient agriculture and a population much more susceptible to famine than the village community.

(The new class relation in agriculture affected both production and distribution.)

The imposition of the capitalist economic system on rural India gave rise to a situation in which capital was separated from the labour engaged in cultivation. The cultivator lacked the resources to make any improvements, while the landlord found it more profitable to acquire new land and obtain rent on it than to make improvements to the land or agricultural equipment. The rent had to be paid in cash, another innovation over the old system, and a large proportion of the cultivator's income went to the landlord. In years of drought, the cultivator would be forced to borrow money from a moneylender, who became, in effect, another class of landlords.

The same pattern broke up the communal systems and established feudalism in Europe. Then in the Industrial Revolution, large numbers of agricultural labourers were thrown out of work and suffered great hardship. But in India, colonialism prevented the development of any new industries, or indeed any development of the society which could meet the needs of those people. The population was made more dependent on agriculture than previously. All that could happen was that the poverty in Indian society should become more acute and more widespread. (At the same time the agricultural labourer was hit)

By the end of the 19th century, the British were forced to take some action over this state of affairs to preserve their own position. The policy in the Famine Codes of 1883 was that the state would not interfere in individual cases, but only in a major calamity: since an Indian famine was caused by a temporary lack of employment for the mass of the agricultural population, the principal form of relief would be the opening of relief works to provide employment. The point about such measures is that you achieve absolutely nothing. The starving people are starving because they are surplus population - surplus to the economic and social system in which they are living. Providing temporary employment by relief works can only keep people alive so that there are more to starve the next time the system goes into crisis (as Malthus would no doubt have agreed.)

The further point is that the "philanthropists" and opportunists of the day who protested against the inadequacy of the British measures to deal with the cycle of Indian famines at the end of the 19th century, put forward suggestions which were in essence no different from the measures which the British carried out. The "leaders of public opinion" in England and India raised an outcry over the misery and suffering, but advocated "reforms" which were quite superficial and in no way dealt with the basic problem, which, as we have seen, is that private ownership of the means of production and the land and private ownership of the means of distribution (in this case mainly grain-traders) has come in contradiction with the needs of the "surplus population". The landlords and traders must make a profit, and the population must eat and must cultivate land. These two interests are opposed to each other.

For example, the Indian Famine Union was formed in London in 1902 by the Marquis of Rippon, Lord Hobhouse, etc. It urged the British government to hold an enquiry into the condition of the Indian people, to be more "elastic with the land revenue system, to alleviate rural indebtedness by establishing agricultural banks, to encourage the construction of works of irrigation, and to promote Indian arts and industry.

Also formed in this period was the Indian National Congress, representing the anti-British elements of the Indian ruling class. The INC annual congress in December 1896 deplored "the outbreak of famine in a more or less acute form throughout India", and said that "this and other famines which have occurred in recent years are due to the great poverty of the people." What a brilliant discovery! This poverty they considered to be the product of excessive taxation, the civil and military extravagance of the Indian Government, etc. They recomended the adoption of a policy "which will enforce economy, husband the resources of the State, foster the development of indigenous and local arts and industries which have been practically extinguished, and help forward the introduction of modern arts and industries."

On the one hand we have the "conscience-stricken" British ruling class, or the more farsighted section of the English ruling class, which sees that their position is threatened, and makes suggestions as to how the system could be made to work better. On the other hand, we have the opportunists of the Indian ruling class, who give out their high-sounding tautologies so that the misery of the Indian people can promote their own class interest, which is opposed to the British. Both did a great disservice to the Indian people by confusing the issue, and by not pointing to the actual problem. Both types are well represented among our modern "philanthropists".

At the beginning of the 20th century, the British administration did take certain anti-famine measures. They extended and repaired the irrigation works, but rejecting a recomendation made by a commission on the matter, that "the main question regarding new works is not whether they are directly remunerative to the State." 'Productive' works, which would bring an immediate cash return, were constructed. They also took action against money-lenders, introduced rent regulation and provided agricultural credit.

THE BENGAL FAMINE

This did not prevent in 1943 the occurrence of the Bengal Famine (still the most disastrous single famine the Indian people have suffered). From the 1890's the population of India continued to rise, while food production continued to fall.

Period	Population Index	Index output of food crops
1893-4 to 1895-6	100	100
1896-7 to 1905-6	101	95
1906-7 to 1915-16	107	91
1916-7 to 1925-26	10	90
1926-7 to 1935-36	120	78
1936-7 to 1945-46	138	38

The all India Agricultural Labour Enquiry in 1951 showed that the per capita decrease in food consumption, which is the obvious outcome of this trend, was not evenly distributed over all classes, but that the poorer classes had suffered the greatest decrease per capita in consumption of food grains.

From 1920-1940, food imports into India had risen by 10 times. India was increasingly dependent on food from outside the country. The conquest of Burma by the Japanese in April 1942 stopped food imports from that country. In January 1941 the winter rice harvest in Bengal had been short by 2,000,000 tons, and the province has had a deficit of 2,800,000 tons below its total requirements for 1941. In fact, 9 months supply of food had been provided. The central government took no action, but Bengal scraped through by using up all the surplus rice stocks accumulated from previous years. The 1942 rice crop was fairly good, amounting to 8,900,000 tons, but giving no surplus. The 1943 yield however, was 3,000,000 tons, giving a current supply for Bengal of 3 weeks. The Famine Commission Report (1945) estimated that there was in fact, a carryover from previous years amounting to 6 weeks supply still available. This gave only a three weeks deficit for 1943, smaller than the deficit which had occurred in both 1936 and 1941, neither of which had been famine years.

But on account of the fall of Burma, the Government requisitioned the stocks of wholesale dealers in Calcutta. Starting in November 1942, the price of rice rocketed for the next one year. In November 1942 it stood at 7.5 rupees per maund, by October 1943 it was 80 rupees per maund. The price was soon far beyond the reach of the people in the rural areas, who came in their millions to Calcutta, and who died in their millions there. The rice was there but the price was too high.

Evidence before the Famine Commission by Professor Chattopadhayay of Calcutta University showed that approximately 3.5 million people died during the famine. The Commission itself voted that "only" 1.5 million died. When the report of this went to the printers, the President of the Commission stopped the printing and attempted to have the proof sheets destroyed. The action of one of the members of the Commission prevented this, but it was a long time before the findings were made public.

Among other things, the report showed that the grain trade was entirely in private hands, and that the government always refused to interfere in the matter. Before and during the famine, it took no action to regulate grain supplies, or to move grain from adjoining areas. In fact the government in Calcutta had little or no information at the time about production or foodstocks in the country areas. The Commission estimated that the grain trade had made a profit of rs. 150 crores during the famine (1 crore= 10 million).

China's Answer

"There is little hope that the world will escape the horror of extensive famines in China during the next few years. But from the world point of view, these may not only be desireable, but indispensible."

William Vogt, "The Road to Survival", 1946

Since Liberation, in 1940, there have been no famines in the People's Republic of China, in spite of several years of adverse natural conditions, which previously would have caused devestating famines. In "Fanshen", William Hinton, who went to China in the early 40's as a tractor expert and stayed on after liberation, traces the history of LONG BOW village in Shantung region, from the pre-revolutionary days to the Socialist Construction. He shows, from the narrative related to him by the villagers, how the wretched conditions of the majority of the people, who were perpetually in a state of starvation or near-starvation, changed with the revolution, and how these conditions developed to their present state.

Before the land revolution, Chinese landlords, who were 7% of the population, controlled 31% of the land and owned 33% of the draught animals. Poor peasants often had to sell their children or even their wives: a teenage girl sold for a hundredweight of grain in a bad year.

Among the articles in the Draft Agrarian Law (introduced in 1947) were the following:

1. The Agrarian system of feudal and semi-feudal exploitation is abolished. The Agrarian system of "land-to-the-tiller" is to be realised.
2. The landownership rights of all landlords are abolished. (N.B. A landlord was classified as somebody owning more than a certain amount of land, and living by the exploitation of labourers).
3. All debts incurred in the countryside prior to the reform of the agrarian system are cancelled.
4. Landlord's land and public land is to be taken over by the village peasants' associations and equally distributed. All the people of the village will have equal amount of land, and it will be held as individual property.

The total Chinese grain production in 1949 was 108,980,000 tons. By 1955, this had risen 68.7% to 182,500,000 tons, a figure which was higher than the highest previous figure for total grain production. (Yang Hsien-tung 1958, in "Hunger and Food," edited by J. de Sastre). The land reform had transformed the tenant farmers into the owners of the land they cultivated and as a result there was a great rise in output. Previously, rent in land had generally been more than 50% of the total output of the farm, sometimes higher. In some regions a cash rent system prevailed, 12-15% of the price of the land.

"These high rents not only robbed the peasants of their surplus labour, but also of a portion of the products of their essential labour. For instance, before liberation, in Chiangchiachiao village, Meitsun district, Wusi county, Kiangsu, the average costs of production for a peasant to cultivate 1 mou of land (1 mou=1/15 hectare) were about 56 kg. of rice; while his living expenses were about 42 kg. of rice. But the annual output of this 1 mou of land was only about 165 kg. of rice. After deducting the costs of production and the living expenses of the above mentioned, only 67 kg. were left. However, the peasant had to pay 50% of his output, or 82.5% kg. of rice after the rent was paid. This deficit had to be drawn from the costs of the necessitites of life or from the reserve funds. Thus the peasant could not but reduce their livelihood to an extremely low level." (Yang Hsien-tung, 1958).

Landlords always increased their rent when the harvest was good. "Thus the enthusiasm of the peasants for cultivation and technical improvements was destroyed."

Land reform not only liberated the great mass of the landless and poor peasants, it "also created favourable conditions for the development of agricultural production." The peasants' enthusiasm for improving their agricultural techniques was stimulated. "Patriotic Increasing Production Movements" arose, and deep ploughing, closer planting, the use of better quality seeds, applying more manure, and preventing plant diseases and insects, and other advanced agricultural techniques were adopted throughout the country.

After the completion of land reform, the agricultural cooperation movement was developed. Mutual aid teams and agricultural producers' cooperatives furthered the betterment of the peasants' livelihood. Mutual aid teams overcame the difficulties of shortage of labour, draught animals and farm implements. Members of a team help eachother to work their private plots of land. Experience shows that this generally gave a higher crop yield per unit area than that of the individual peasants. Agricultural producers' cooperatives are voluntary collective organisations of labouring peasants which collectively make use of the means of production and the land, gradually transforming the private ownership of these into collective ownership. The fruit of the collective labour is distributed among the members.

"There are two types of agricultural producers' cooperatives: elementary and advanced. During the elementary stage, the cooperative has a part of the means of production, owned jointly by the members, making use of the land, labour and means of production in a unified manner. Members of the cooperative still retain their private ownership of the land, collecting a certain portion of the earnings according to the land they pool. This kind of agricultural producers' coop(equivalent to the collective farm in the Soviet Union) which is entirely socialist in character, the land of the members and other means of production have passed to the collective ownership. This kind of advanced type of cooperative is greatly superior. It is able to emancipate the productive force in the rural community, stimulating the enthusiasm and initiative of the peasants and increasing the labour attendance and labour productivity of the farmers. Besides, this advanced type of cooperative possesses the conditions and potentialities to carry out productive undertakings which individual peasants never dared to do or even to think of in the past."

Neo-Malthusians: THE GREAT PHILANTHROPISTS

"No problem is more urgently important to the well-being of mankind than the limitation of population growth."

-John D. Rockerfeller IIIrd

(Opening remarks at the International Conference on Family Planning Programmes, Geneva, 1965. Report published as "Family Planning and Population Programmes").

Lord Boyd Orr is not alone in condemning 2/3 of mankind to a life of hunger and malnutrition. With the advances made in contraceptive technique, the Neo-Malthusians here added one point to Malthus' argument, that in contraception man had acquired a preventitive check to population which is under his conscious control.

In a newspaper "The Malthusian" (Reprinted as Malthusiana, 1904) A. Elly Finch wrote, "The nation is starved and crowded out of the conditions needed for healthy life by the pressure of a huge contingent of born weaklings and criminals. We of the living generation are dispensers of our natural gifts to our successors, and we should rise to the level of our high opportunities." And in another article, "Unfortunately, Malthus' great discovery has not yet formed any part of the curriculum of the educated classes, and hence but a few of these are sufficiently instructed to be able to enlighten their poorer neighbours. These are left to their own ignorant leaders, who tell them in Hyde Park and elsewhere, that overcrowding, overwork, sweating and starvation wages, are due to oppressive laws, or the tyranny of capital, instead of their own reckless and irrational propagation....In this free country people are not oppressed by political laws, their lives are chiefly governed by the laws of Nature, and their miseries mostly arise out of their own infringement of these paramount laws."

"Nature's terrible correctives of the redundancy of mankind are called into activity by irrational and reckless propagation, especially indulged in by the indigent and wage-earning classes."

Margaret Sanger, the first propagandist for birth control in the USA, speaking at the Fifth International Neo-Malthusian and Birth Control Conference in 1922, said that "From the dawn of humanity, and even the dawn of civilization, we have recognised that there are two fundamental urges which have prodded mankind forward. These have been hunger and sex. While they have both been neglected factors to a great extent in our recognition of them, the French Revolution aroused the whole civilized world to realization of the fact that the urge of hunger cannot be ignored without dire consequences to all.

The other urge of sex, however, has been almost entirely ignored, and it is now time for us to awaken the conscience of the present generation to a realization of the consequences to civilization unless we accept this instinct, and recognizing it as being fully fundamental and equally dynamic and fateful in its consequences as hunger."

Margaret Sanger states her point quite clearly; she is afraid of the revolution that will destroy imperialism and capitalism. Every poor person is a potential revolutionary, so one must keep down the numbers of the poor. Her idealism cannot grasp either history or the economics of the present society. Did hunger and sex "prod" the hunter and make him an agriculturist? Will hunger and sex transform an African tribe living by short fallow cultivation into a tribe using the iron plough? Such advances have come about in history through the development of the means of production. When the potential of the means of production has been exhausted, man has developed a new one. It has been the labour of the working people that has developed history, and not "hunger and sex". Just as it was not hunger and sex that created modern industry, so it is not "hunger and sex" that will create the society which can utilize modern industry.

Margaret Sanger's misunderstanding of the economics of capitalism causes her to suggest it is possible to eliminate famine, unemployment, and the other oppressions which the world suffers, without eliminating its source, i.e. capitalism. As we have said, the essence of capitalism in its decline is that it is a system which is forced to function below its capacity, to maintain profits. For competing capitalists a satisfied market is incompatible with a profit margin. Whatever the total population, a certain 'surplus population' is required to enable the system to function at below capacity. Reducing the population in no way changes this requirement (this would make matters worse by reducing the number of people employed).

Neo-Malthusians specifically ignore the development of the means of production. The most straightforward illustration of this is the theory of Pearl (the Biology of Population Growth 1925). Pearl took flies (Drosophilia melongaster) and kept them in a closed bottle with a food supply.

He then settled to count the numbers of flies in the bottles, and worked out the pattern of the growth of the fly populations. He came to the conclusion that "the fly Drosophilia, in its population growth under controlled experimental conditions, follows the logistic curve." Pearl then devoted a large amount of energy and paper to prove that human populations also grow according to the logistic curve. (Cippola 1962). This argument completely ignores man's relationships with, and control over, the means of production. As we have shown, historically, the population of the earth has grown in accordance with the development of the means of production.

John D. Rockefeller III, in the speech quoted above, went on to say, "The ultimate objective of our work in family planning is not the restriction of human life, but rather its enrichment." The population problem was not just a matter of food. "The question, as I see it, has in fact three dimensions. It is numbers of people versus material resources- but also cultural resources. The third dimension of the population is society's ability to satisfy man's mental, emotional, and spiritual needs and aspirations, (what every man needs in addition to bare necessities and creature comforts, to lead a life of satisfaction and purpose, to achieve in life more than mere existence).

"Those who are concerned with the quality of life have no choice but to be concerned as well with the quantity of life."

For obvious reasons, Rockefeller opposes the development of the relations of production. He wishes to maintain the private ownership of the means of production. For the quality of life to improve, society must develop, but he takes care not to mention what developments might take place.

Sir Julian Huxley (Too Many People in Our Crowded Planet, edited by Osborn, 1963) gives the same argument as Rockefeller. "Overpopulation is the most serious threat to human happiness and progress in this very critical period in the history of the world."

"It (our ultimate aim as the agents of evolution) must be to conserve and develop the resources of the earth and the resources of our own nature. And so our aim should be to increase the richness of life and enhance its quality."

He continues by claiming that we have squandered the material resources of the earth, and now "we are beginning to destroy our resources of true enjoyment-spiritual, aesthetic, intellectual, emotional. " "Only a world population policy holds out any hope!"

Lord Boyd Orr joins him in moaning the passing of the idle life (Our Crowded Planet, 1963). He says that unless the birth-rate falls, "I am inclined to agree... that we are living in the twilight of a golden age and that even if we escape annihilation in another world war, our civilization will collapse in chaos through the burden of a population which the earth can no longer support."

To conclude, we have the views of W. Vogt, quoted earlier. He gives us a clue as to why he considers famines in China a desirable thing (though not in the same book, but in "People! Challenge to Survival 1931). "The danger is very great that China will move southwards into about the only part of Asia with surplus food, unless she decides to move west."

He wisely avoids giving any analysis of the causes of famines. Instead he declares "India is the great bastion of democracy in Asia. It is the obvious counterfoil to Red China. Despite almost incredibly stupid political strategy, Red China's progress in material development undoubtedly has a powerful appeal to the politically "uncommitted" third of the world's population. They are ill informed and misinformed. They have few sound bases for judging what happens in Mao Tse-tung's domain. If Mao reaches only half his goals and if five million people starve to death in India- or ten million- it will be difficult for the uncommitted and the uninformed to reach any other conclusion than that Communism is superior."

He feels bad about the starving millions. But "By a special and largely fortuitous combination of circumstances we Americans have been able to reach a level of material comfort without precedent in the history of the world. This most of us have identified with a penultimate, if not an ultimate, good, and with the zeal of dedicated missionaries we are making at least the gesture of extending it to the rest of the world".

"We need, I think, not apologize for trying to maintain a high standard of living in America, though many of us wish there might be more emphasis on quality than quantity. It is only because we have a high standard that we have been able to give as much help as we can to our fellow man."

But he does not think that his fellow men can organize their lives. "The understanding of nature's laws, evolved by a tiny minority of the human race, and applied to ends both constructive and destructive, is impressive. But this understanding is, unfortunately restricted to a miniscule proportion of the nearly three billion people in the world. And some of the most brilliant insights are given to such small fractions of even the well-informed that understanding them has limited or often non-existent influence." The particular brilliant insight that has failed to take root is that of the need to prevent population growth!

What could be done? "One of the most radical suggestions as to fertility control came from Dr. Homi Bhabha, President of the Indian Atomic Energy Commission, at the 1959 meeting in New Delhi of the International Planned Parenthood Federation. " What India needs, said Dr. Bhabha in effect, is not the perfect contraceptive but something that will reduce overall fertility. If the Indian birth rate could be cut by 30%, economic development could overtake population growth and we could raise our standard of living.

"What we need, he concluded, is an anti-fertility agent to be added to the rice grain or salt, that would cut our birth rate by this amount." Good Luck!